Applicants request that the following amendments be made in the above-identified application:

In the Specification:

Page 1, after the title and before the Background of the Invention, please delete the sentence beginning "This application is" and insert the following sentence: --This application is a continuation of U.S. Application No. 08/421,079, filed April 13, 1995, now abandoned.--

In the Claims:

Please cancel Claims 1-4, 8-10 and 19.

Please add the following new Claims 20-23.

--20. (new) A method for diagnosing erythrocyte hemolysis in a subject comprising the steps of:

(a) obtaining a serum sample from said subject; and

(b) detecting the presence of erythrocyte adenylate kinase in said sample, the presence of said erythrocyte adenylate kinase being indicative of erythrocyte hemolysis in said subject.--

--21. (new) A method for detecting the presence of hemolyzed erythrocytes in a serum sample comprising the steps of:

(a) electrophoresing said serum sample in a gel matrix so that erythrocyte adenylate kinase migrates to a known location on said gel matrix;

(b) contacting said gel matrix with an adenylate kinase-specific visualization reagent which reacts with said erythrocyte adenylate kinase and causes emission of fluorescence upon exposure of said gel matrix to ultraviolet light;

(c) exposing said gel matrix to ultraviolet light; and

(d) detecting emission of fluorescence at said known location on said gel matrix , emission of said fluorescence at said known location being indicative of hemolyzed erythrocytes present in said serum sample.--

--22. (new) The method of Claim 21, wherein said adenylate kinase visualization reagent comprises adenosine diphosphate, D-glucose, nicotinamide adenine dinucleotide, hexokinase and glucose-6-phosphate dehydrogenase.--

--23. (new) A method for determining erythrocyte adenylate kinase enzymatic activity in a serum sample comprising the steps of:

(a) determining total adenylate kinase enzymatic activity in a first aliquot of the serum sample by mixing the first aliquot with a first adenylate kinase-specific visualization reagent which reacts with the total adenylate kinase causing a

change in absorbance of the mixture, and measuring the change in absorbance of the mixture, the change in the absorbance being indicative of the total adenylate kinase enzymatic activity;

(b) calculating the percent of the erythrocyte adenylate kinase in the total adenylate kinase in the serum sample by:

(1) electrophoresing a second aliquot of the serum sample in a gel matrix so that the erythrocyte adenylate kinase migrates to a known location on the gel matrix;

(2) contacting the gel matrix with a second adenylate kinase-specific visualization reagent which reacts with the total adenylate kinase and causes emission of fluorescence upon exposure of the gel matrix to ultraviolet light;

(3) exposing the gel matrix to the ultra-violet light;

(4) measuring total fluorescent light emitted from the gel matrix;

(5) measuring fluorescent light emitted from the gel matrix at the known location of the erythrocyte adenylate kinase migration on the gel matrix; and

(6) calculating the percent of the erythrocyte adenylate kinase by dividing the measured fluorescent light of step (b)(5) by the measured total fluorescent light of step (b)(4); and

(c) multiplying the percent of erythrocyte adenylate kinase by the total adenylate kinase activity to give the erythrocytic adenylate kinase enzymatic activity in the serum sample.--